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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,973	07/30/2003	Michael J. Matusek	OTD-030256-US	9518

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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,973	MATUSEK ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-30 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 19-30 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 19-30 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 5 August 2005. In that paper, applicant has added the above claims, and these claims indicate that the invention is different from what is defined in the original claim(s) because the original claims recite that the “gripping member” or “latching dogs” are located on the “tubular body”. However, the newly filed claims recite that the “gripping member” is located on the “mandrel” which is claimed as a separate feature from the “tubular body”. While in broad terms, the “gripping member” could be described as being “on” any feature of the claimed tool, claims 19-30 are still considered to be contradictory to the originally filed claims as the “gripping member” cannot be claimed as being located on the tool body in one set of claims and on the mandrel in a separate set of claims. It is not clear if the gripping member or latching dogs are meant to be located on the mandrel or the tubular body. No art rejection of the above claims has been presented due to the uncertainty of the scope of the claims

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Wightman et al. (US 4,712,621).

Regarding claim 1: Wightman et al. discloses an installation tool for landing a casing hanger **95** in a wellhead **123** and setting a seal assembly **77** in the annulus between the hanger and the wellhead without requiring rotation of a drill string (8:60-65). The tool includes the following features:

- A mandrel **19** having an upper end adapted for connection to the string of drill pipe and a bore therethrough.
- A tool body **13** having a lower end connected to a drill string. The tool body is carried by the mandrel and the body is axially movable relative to the mandrel (2:50-63).
- A first of connection means **91** positioned on the body for releasably connecting the body to the casing hanger without rotating the mandrel (6:51-63).
- A second of connection means **81** positioned on the body for releasably connecting the body to the seal assembly without rotating the upper end of the mandrel (6:51-63) that is indirectly connected to the drill string.
- A pressure responsive shuttle piston **71** on the mandrel. The piston is axially movable to urge the seal assembly into the annulus between the casing hanger and the wellhead.
- A valve means **41** positioned in the mandrel bore and operable between open and closed positions by axial movement of the mandrel relative to the body.

Regarding claim 2: The body includes a main body **65a**, an upper body **13a**, and a lower body **65**. The main body includes the connection means connecting the tool body and the seal assembly.

Regarding claim 3: The lower body includes the connection means connecting the tool body and the casing hanger.

Regarding claim 4: The upper body includes a frangible connection means (not shown, the upper body is indirectly secured to the piston via the valve means) securing

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the upper body to the piston prior to the seal assembly being urged into the annulus between the casing hanger and the wellhead.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Wightman et al.

Regarding claim 5: Wightman et al. further discloses that the piston includes a plurality of actuator rods **73** secured to an actuator rod head. Wightman et al. fails to disclose that the head is secured to the piston via a frangible connection means.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the piston and actuator rod head of Wightman et al. such that the head was secured to the piston via a frangible connection means in order to have provided a means for securing the rods in an unactuated position until a predetermined condition indicative of the actuation of the tool has been reached. This would have prevented premature actuation of the seal assembly and piston.

Regarding claim 6: The lower body includes a plurality of latching segments **81** positioned on the lower body for releasably connecting the body to the seal assembly. The latching dogs are circumferentially spaced on the lower body and are positioned to be urged into engagement with the casing hanger by the axial movement of a latch ring **97** positioned on the mandrel.

Regarding claim 7: The body and piston include a plurality of flow return passages **87** (6:44-50). The passages cooperated with flow return passages in the casing hanger (not shown) to allow cementing of the casing string prior to urging the seal assembly into the annulus.

Regarding claim 8: Wightman et al. discloses all of the limitations of the above claims except for the valve being a ball valve.

Bartlett et al. discloses a casing hanger assembly. Bartlett et al. further teaches that a sleeve valve, such as that taught by Wightman et al., known to be a functional equivalent to a ball valve (paragraph 52).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the tool of Wightman et al. to use a ball valve instead of a sleeve valve since the examiner takes Official Notice of the equivalence of a sleeve valve and ball valve for their use in the casing hanger installation art and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Further, the latching segments are released from the seal assembly by pressure applied in the bore of the mandrel, which shifts the piston relative to the body.

7. Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wightman et al. in view of Barlett et al. (US 2002/0189813).

Regarding claim 12: Wightman et al. discloses an installation tool for landing a casing hanger **95** in a wellhead **123** and setting a seal assembly **77** in the annulus between the hanger and the wellhead without requiring rotation of a drill string (8:60-65). The tool includes the following features:

- A mandrel **19** having an upper end adapted for connection to the string of drill pipe and a bore therethrough.
- A tool body **13** having a lower end connected to a drill string. The body includes a main body **65a**, an upper body **13a**, and a lower body **65**. The tool body is carried by the mandrel and the body is axially movable relative to the mandrel (2:50-63).
- A plurality of latching dogs **91** positioned on the lower body for releasably connecting the body to the casing hanger without rotating the mandrel (6:51-63).

- A plurality of latching segments **81** positioned on the lower body for releasably connecting the body to the seal assembly without rotating the upper end of the mandrel (6:51-63) that is indirectly connected to the drill string.
- A pressure responsive shuttle piston **71** on the mandrel. The piston is axially movable to urge the seal assembly into the annulus between the casing hanger and the wellhead.
- A valve means **41** positioned in the mandrel bore and operable between open and closed positions by axial movement of the mandrel relative to the body.

Wightman et al. discloses all of the limitations of the above claims except for the valve being a ball valve.

Bartlett et al. discloses a casing hanger assembly. Bartlett et al. further teaches that a sleeve valve, such as that taught by Wightman et al., known to be a functional equivalent to a ball valve (paragraph 52).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the tool of Wightman et al. to use a ball valve instead of a sleeve valve since the examiner takes Official Notice of the equivalence of a sleeve valve and ball valve for their use in the casing hanger installation art and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Regarding claim 13: The upper body includes a plurality of tensile bolts (not shown, the upper body is indirectly secured to the piston via the valve means) securing the upper body to the piston prior to the seal assembly being urged into the annulus between the casing hanger and the wellhead.

Regarding claim 14: Wightman et al. further discloses that the piston includes a plurality of actuator rods **73** secured to an actuator rod head. Wightman et al. fails to disclose that the head is secured to the piston via a frangible connection means.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the piston and actuator rod head

of Wightman et al. such that the head was secured to the piston via a frangible connection means in order to have provided a means for securing the rods in an unactuated position until a predetermined condition indicative of the actuation of the tool has been reached. This would have prevented premature actuation of the seal assembly and piston.

Regarding claim 15: The latching dogs are circumferentially spaced on the lower body and are positioned to be urged into engagement with the casing hanger by the axial movement of a latch ring 97 positioned on the mandrel.

Regarding claim 16: The body and piston include a plurality of flow return passages 87 (6:44-50). The passages cooperated with flow return passages in the casing hanger (not shown) to allow cementing of the casing string prior to urging the seal assembly into the annulus.

Regarding claim 17: The lower body would include a ball pin for operating the ball valve if a ball valve was used in place of the sleeve valve.

Regarding claim 18: The latching segments are released from the seal assembly by pressure applied in the bore of the mandrel, which shifts the piston relative to the body.

Allowable Subject Matter

8. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed October 26 2005 have been fully considered but they are not persuasive.

Applicant has argued that the language of claims 19-30 is clear and the claims are merely broader than the original claims.

While the examiner agrees that claims 19-30 are broader than the original claims, they are still considered to be contradictory to the original claims. The original claims recite that the gripping member is located on the tubular body with the mandrel recited as

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a separate and distinct feature. Claims 19-30 recite that the gripping member is located on the mandrel with the tubular body recited as a separate and distinct feature. This is contradictory; the gripping member cannot be located on two different and distinct features of the tool. As described in paragraphs [0028] and [0029] the locking dogs **108** are located within windows **106** of the lower body **40** of the tubular body **16**. The mandrel, or an element thereof **128**, is merely used to move the locking dogs thus the locking dogs are not actually located on the mandrel. Both the specification and Figures 1A-2C teach that the locking dogs are located on the tubular body and not the mandrel.

It is further noted that without the recitation in claims 19-30 that the tool also includes the separate tubular body, the claims would indeed be considered merely broader than the original claims and not contradictory thereof.

Applicant has argued that Wightman does not teach not rotating the upper end of the mandrel at the point of connection for support by a tubular string. The examiner first notes that the claims do not indicate that the upper end of the mandrel does not rotate at the point of connection. The claims merely recite “without rotation of said upper end of the mandrel that is connectable to the tubing string”. This language only requires that the upper end of the mandrel not be rotated and does not require that no rotation take place at the point of connection. Secondly, it is noted that the mandrel **19** of Wightman is still indirectly “connectable” to the drill string while not rotating when the tool is set.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

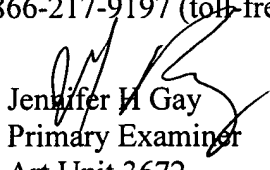
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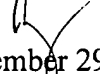
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer H. Gay
Primary Examiner
Art Unit 3672

JHG 
November 29, 2005